REMARKS

New Claims 40-63 are added. Claims 1-63 are pending.

Double Patenting

The Office Action mailed January 13, 2005, states that Claims 1-39 are provisionally rejected under the judicially created (nonstatutory) doctrine of obviousness-type double patenting as being unpatentable over copending Application No. 09/849,794. A terminal disclaimer submitted in response to that Office Action was not accepted because it was unsigned. A properly signed terminal disclaimer in compliance with 37 CFR § 1.321 is submitted concurrent with the instant response, thereby obviating the double patenting rejection.

Reply to Examiner's Response to Applicants' Arguments

Applicants respectfully disagree with some of the statements in the instant Office Action (specifically, pages 7 and 8 of the Office Action).

One argument advanced by the Applicants pertains to the motivation to combine the two references (Nakagawa et al., hereinafter "Nakagawa," U.S. Patent No. 6,810,131, and Perlman et al., hereinafter "Perlman," U.S. Patent No. 6,055,316) cited in the rejection of Claims 1-39 under 35 U.S.C. § 103(a).

The Examiner claims to have found a reference (Al Jabri et al., "Secure Progressive Transmission of Compressed Images," hereinafter "Al Jabri") that shows progressively encrypting scalably encoded data.

Applicants would have expected that such a reference would have been cited against the claims under either 35 U.S.C. § 102 or 103. Nevertheless, Applicants respectfully disagree that Al Jabri teaches that which is relied

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upon. Applicants respectfully submit that Al Jabri does not show or suggest progressive encryption, and thus Al Jabri does not support a motivation for combining Nakagawa and Perlman.

According to the instant application, "progressive encryption is defined as a process which takes original data (plaintext) as input and creates progressively encrypted data (ciphertext) as output, where the progressively encrypted data has the property that the first portion can be decrypted alone, without requiring information from the remainder of the original data; and progressively larger portions can be decrypted with this same property, in which decryption can require data from earlier but not later portions of the bitstream. Progressive encryption techniques include, for example, cipher block chains or stream ciphers. These progressive encryption methods have the property that the first portion of the data is encrypted independently, then later portions are encrypted based on earlier portions" (see at least page 14, lines 22-33, of the instant application).

In other words, with progressive encryption according to an embodiment of the present invention, a portion (e.g., a first block) of scalably encoded data is encrypted to generate a first block of encrypted scalably encoded data. In such an embodiment, additional scalably encoded data (e.g., a second block) is then encrypted together with (in combination with) either the first block of scalably encoded data or the first block of encrypted scalably encoded data to generate a second block of encrypted scalably encoded data, and so on.

Al Jabri, and in particular the part of Al Jabri relied upon by the Examiner, only shows, for example, a first portion of data being encrypted three times, a second portion two times, and a third portion one time.

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However, according to Al Jabri, the portions are encrypted independent of each other. That is, for example, the first portion of data is not included in the encryption of the second portion. Furthermore, according to Al Jabri, data (in particular, scalably encoded data) is not added to, for example, the first portion as the first portion is repeatedly encrypted.

Thus, Applicants respectfully submit that Al Jabri does not show or suggest progressive encryption as recited in Claims 1-39. Consequently, Applicants respectfully submit that Al Jabri neither provides nor supports a motivation for combining Nakagawa and Perlman.

Applicants also respectfully disagree with the statements in the instant Office Action to the effect that, if two references are classified in analogous arts according to the U.S. Patent Office (PTO) classification system, then there is support for combining the two references. Applicants respectfully note that the prior art search is expected to include references that are analogous to the present claimed invention. The fact that such a search produced two references (Nakagawa and Perlman) from the same class would not be unexpected. Applicants respectfully submit that this does not provide or support a suggestion or motivation to modify or combine references identified from such a search – because two references are analogous does not make it obvious to combine them to make the claimed invention.

In addition, regardless of whether or not the Nakagawa and Perlman references are analogous, Applicants have argued (and continue to argue) that progressive encryption of scalably encoded data, as recited in the claims, was not implemented by those skilled in the art prior to the

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invention, and this fact provides evidence that it is not obvious to combine Nakagawa and Perlman.

103(a) Rejections

Claims 1-6, 10-19, 23-32 and 36-39

The instant Office Action states that Claims 1-6, 10-19, 23-32 and 36-39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa et al. ("Nakagawa;" U.S. Patent No. 6,810,131) in view of Perlman et al. ("Perlman;" U.S. Patent No. 6,055,316). The Applicants have reviewed the cited references and respectfully submit that the present invention as recited in Claims 1-6, 10-19, 23-32 and 36-39 is not anticipated nor rendered obvious by Nakagawa and Perlman, alone or in combination.

Applicants respectfully submit that there must be some suggestion or motivation to combine Nakagawa and Perlman. Applicants respectfully contend that there is no such suggestion or motivation in either Nakagawa and Perlman. Perlman makes no mention of encoding or compressing data. Nakagawa appears to only describe encryption in terms of scrambling. Applicants respectfully disagree with the statement in the instant Office Action that element 1108 of Nakagawa (Figure 15) is an encrypter. Element 1108 is a sign inverter used for compressing data.

Applicants respectfully disagree with the statements in the instant Office Action that it would have been obvious to one of ordinary skill in the art to combine the teachings of Nakagawa and Perlman. Applicants respectfully submit that, at the time of the claimed invention, it was not obvious to combine the teachings of Nakagawa and Perlman. Applicants respectfully submit that the existing level of ordinary skill in the art at the time the claimed invention was made is summarized in the background art

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section of the instant application. As described therein, the prior art was problematic for many reasons, which can be generally summarized as a lack of capability to scale (e.g., transcode) data in a secure manner. It is reasonable to infer that these problems would not have persisted had the claimed invention been obvious. Instead, those of ordinary skill in the art continued to encounter the disadvantages of the prior art without obvious solution. Applicants respectfully assert that the fact that progressive encryption of scalably encoded data, as recited in the claims, was not implemented by those skilled in the art prior to the invention provides evidence of the nonobviousness of the present claimed invention.

Applicants respectfully submit that, even in combination, Nakagawa and Perlman at best only describe a method or system that is described by, and shares the problems of, the prior art described in the background art section of the instant application.

In summary, Applicants respectfully submit that Nakagawa and Perlman (alone or in combination) do not show or suggest progressive encryption of scalably encoded data as recited in independent Claims 1, 14 and 27. Therefore, Applicants respectfully submit that Claims 1, 14 and 27 are considered patentable over Nakagawa and Perlman (alone or in combination). Because Claims 2-6, 10-13, 15-19, 23-26, 28-32 and 36-39 depend from Claims 1, 14 or 27 and contain additional limitations, Claims 2-6, 10-13, 15-19, 23-26, 28-32 and 36-39 are also considered patentable over Nakagawa and Perlman (alone or in combination). Therefore, Applicants respectfully submit that the basis for rejecting Claims 1-6, 10-19, 23-32 and 36-39 under 35 U.S.C. § 103(a) is traversed.

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Claims 7-9, 20-22 and 33-35

The instant Office Action states that Claims 7-9, 20-22 and 33-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa in view of Perlman and further in view of Van der Auwera et al. ("Van der Auwera;" U.S. Patent No. 6,532,265). The Applicants have reviewed the cited references and respectfully submit that the present invention as recited in Claims 7-9, 20-22 and 33-35 is not anticipated nor rendered obvious by Nakagawa, Perlman and Van der Auwera, alone or in combination.

As presented above, Applicants respectfully submit that Nakagawa and Perlman, alone or in combination, do not show or suggest the embodiments of the present claimed invention recited in independent Claims 1, 14 and 27. Claims 7-9 are dependent on Claim 1 and recite additional limitations. Claims 20-22 are dependent on Claim 14 and recite additional limitations. Claims 33-35 are dependent on Claim 27 and recite additional limitations.

Applicants respectfully submit that Van der Auwera does not overcome the shortcomings of Nakagawa and Perlman. Applicants respectfully submit that Van der Auwera, alone or in combination with Nakagawa and Perlman, does not show or suggest progressive encryption or progressively encrypting data as recited in the independent claims.

Therefore, Applicant respectfully submits that Nakagawa, Perlman and Van der Auwera, alone or in combination, do not show nor suggest the present invention as recited in independent Claims 1, 14 and 27, and that Claims 1, 14 and 27 are considered patentable over Nakagawa, Perlman and Van der Auwera (alone or in combination). Because Claims 7-9, 20-22

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and 33-35 depend from Claim 1, 14 or 27 and contain additional limitations, Claims 7-9, 20-22 and 33-35 are also considered patentable over Nakagawa, Perlman and Van der Auwera (alone or in combination). Therefore, Applicants respectfully submit that the basis for rejecting Claims 7-9, 20-22 and 33-35 under 35 U.S.C. § 103(a) is traversed.

Conclusions

In light of the above remarks, Applicants respectfully request reconsideration of the rejected claims.

Based on the arguments presented above, Applicants respectfully assert that Claims 1-39, as well as new Claims 40-63, overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

WAGNER, MURABITO & HAO LLP

Date: 8/18/05

John P. Wagner, Jr. Reg. No. 35,398

Two North Market Street Third Floor San Jose, California 95113 (408) 938-9060

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